

## **DETAILED DESCRIPTION**

**[0015]** For purposes of promoting an understanding of the principles of the invention, reference will now be made to the exemplary embodiments illustrated in the drawings, and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended. Any alterations and further modifications of the inventive features illustrated herein, and any additional applications of the principles of the invention as illustrated herein, which would occur to one skilled in the relevant art and having possession of this disclosure, are to be considered within the scope of the invention.

**[0016]** Due to the extensive use of various mobile computing devices, e.g., PDAs (Personal Digital Assistant), today, this invention proposes a method where tickets can be downloaded onto PDA's and displayed directly for the various scanning devices at the event gates via the mobile computing device's screen. This bypasses ticket printing and streamlines the general ticketing process. Customers can avoid printing out tickets or waiting in line to obtain their tickets. At an event one may simply download a ticket in the parking lot into a PDA and walk through the gates into the game with the PDA displaying the e-ticket directly to the ticket scanner. The mechanism by which the PDA displays the ticket for the gate scanning devices is preferably some form of a bar code.

**[0017]** One feature of the invention is to take advantage of the availability of mobile computing devices by enabling them to communicate with the various optical scanning devices already widely available. The current invention facilitates the communication between mobile computing devices and the various ticketing systems

through the display of optical symbols such as bar codes. This takes advantage of already existing infrastructure such as the various scanning devices widely installed in many venues.

**[0018]** The present invention avoids the problem of either going to a kiosk to obtain tickets or requiring a user to print out electronic tickets using a personal computer and printer. In the present invention, a person securely purchases an electronic ticket from a networked ticketing server or web site on the Internet. The electronic ticket can then be downloaded to their personal computing device. This personal computing device is portable so the electronic ticket can be taken with the person to the ticketed event.

**[0019]** When the person who purchased the ticket arrives at the ticketed event, the ticket software is activated to display the ticket electronically on the screen of their personal or portable computing device. The ticket taker at the event is then able to scan the electronic ticket directly from screen to the portable computing device. The preferred embodiment of this invention displays a bar code on the screen of the personal computing device that can be scanned by the ticket receiving device. The bar codes or symbols can be one-dimensional or two-dimensional.

**[0020]** This system and method allows the ticket to be downloaded to a personal or portable computing device such as a laptop, tablet computer, electronic organizer, Palm Pilot, or a cell phone. The computing device includes a large enough screen with a high enough resolution to display a rudimentary bar code that can be scanned by a conventional scanner such as a laser barcode scanner. Some other type of optically scannable figure or symbol can also be used and displayed on the screen of

the portable computing device. The point is to display a symbol that the ticket receiving unit can optically resolve.

[0021] FIG. 1 illustrates a portable computing device 10 that displays a barcode 12 for a ticket 14. The major advantage of using a barcode displayed on the screen 16 of the computing device is that the ticket does not have to be printed. Specifically, the user does not need to have access to a printer with paper output. Those skilled in the art of ticket technology have previously been locked in the mindset that the ticket must be printed out onto paper before it can be used.

[0022] FIG.2 illustrates an embodiment of the invention that uses a wireless portable computing device 20 to purchase an electronic ticket from a ticketing server 30. This way the person who desires the ticket can purchase the ticket immediately before the event through an Internet or wireless connection 25. As described, the purchaser does not need to print out the ticket as is required by the prior art, they can just display the barcode on the screen 40 of their portable computing device to enter the ticketed event. An optical scanner 50 can scan the bar code or symbol on the screen using laser light or another wavelength type 70. The scanned code can then be identified by the ticket receiving and scanning device 60.

[0023] Another embodiment of the invention enables the system to communicate with an infrared (IR) link. This is illustrated by the IR communications link 18 in FIG. 1. An IR link is also illustrated by the optical link 50 in FIG. 2, which shows how the communication can take place 70. In addition to using the visible and non-visible light spectrum, it should be realized that this system could also communicate with electromagnetic types of communication such as low power radio frequency.